

Florida Department of Environmental Protection

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ENVIRONMENTAL RESOURCE PERMIT

APPLICANT: U.S. Army Corps of Engineers c/o Mr. James McAdams, P.E. Chief, Environmental Quality Section Jacksonville District 701 San Marco Boulevard Jacksonville, Florida 32207-8175

Permit No.: 0234604-007-EI Date of Issuance: May 19, 2009 Expiration Date: May 19, 2014

County: Palm Beach

Project: Herbert Hoover Dike Rehabilitation and Repair,

Reach 1D Borrow Pit Backfill Project

This permit is issued under the authority of Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain an Environmental Resource Permit. Pursuant to Operating Agreements executed between the Florida Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

ACTIVITY DESCRIPTION:

The project is part of the U.S. Army Corps of Engineers' Herbert Hoover Dike (HHD) Rehabilitation and Repair Project which is expected to enhance the stability of the dike's approximately 143 miles of levees. This project involves the filling of an abandoned state-owned borrow pit that is adjacent to the HHD levee and just south of Paul Rardin Park. Nearly 22.1 acres of undrained borrow pit will be backfilled with select granular fill as well as granular material from onsite uplands excluding the upland area in the vicinity of soil boring QPSB-8. At the start of construction, at least 2 feet of clean fill shall be placed over an area approximately 80 ft. by 80 ft. centered over soil boring QPSB-8. Prior to backfilling, undesirable submerged debris (e.g., tires, wood, etc.) will be removed and properly disposed. If the water level within the borrow pit rises as a response to the backfilling, then offsite discharge via the adjacent stormwater drainage ditch may occur. After backfilling, the surface will be covered with a layer of topsoil and then seeded or sodded. A new perimeter retention swale will be constructed along the southeastern edge of the borrow pit and will capture and convey stormwater runoff to avoid offsite flooding. The hydraulic connection between the new retention swale and the existing stormwater drainage ditch will be maintained.

ACTIVITY LOCATION:

The project is located on an abandoned state-owned borrow pit that is adjacent to the Herbert Hoover Dike and just south of Paul Rardin Park, Class III Waters, within Reach 1D (Section 12, Township 43 South, Range 36 East) in Palm Beach County between Pahokee and Belle Glade. See Figure 1 for a map showing the location of Reach 1D of the Herbert Hoover Dike Rehabilitation Project. See Figure 2 for an aerial image showing the location of the abandoned state-owned borrow pit. The designated beneficial use classification of surface waters adjacent to the abandoned borrow pit is Class III pursuant to 62-302.400, F.A.C.

This permit also constitutes a finding of consistency with the Florida Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

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This permit also constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

The Department acts as staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) and issues certain authorizations for the use of sovereign submerged lands. The Department has the authority to review this project under Chapters 253 and 258, F.S., Chapters 18-20 and 18-21, F.A.C., and Section 62-343.075, F.A.C. The proprietary review has determined that portions of this project will occur on sovereign submerged land and will require authorization from the Board of Trustees to use public property. As staff to the Board of Trustees, we have reviewed the proposed project and have determined that, as long as it is located within the described boundaries and is consistent with the attached general consent conditions, the project qualifies for consent to use sovereign submerged lands. Therefore, pursuant to Chapter 253.77, Florida Statutes, this permit may be considered as authorization from the Board of Trustees to perform the project.

You are hereby advised that authorizations may also be required by other state, federal, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof. This permit is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached 12 General Conditions and 15 Specific Conditions, which are a binding part of this permit. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also shall read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with the drawings referenced in Specific Condition No. 2 and any condition of this permit may result in an enforcement action and possible suspension and/or revocation of this permit.

The U.S. Army Corps of Engineers (Corps) agrees to construct the project in accordance with the provisions of the permit application and supporting documentation. To the extent sovereign immunity has been waived under 33 U.S.C. 1323 and 1344(t), the Corps' agreement to construct the project in accordance with the provisions of the permit application and supporting documentation is an enforceable condition of this permit.

GENERAL CONDITIONS:

- 1. This permit, including its general and specific conditions, must be construed in light of the February 2006 Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 V.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
- 2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing (email is adequate) of any anticipated changes in:
 - a) operational plans;
 - b) project dimensions, size or location;
 - c) ability to adhere to permit conditions;
 - d) project description included in the permit;
 - e) monitoring plans.

If the Department determines that a modification to the permit is required, then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

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3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:

- a) a description of and cause of noncompliance;
- b) the period of noncompliance, including dates and times;
- c) impacts resulting or likely to result from the noncompliance;
- d) steps being taken to correct the noncompliance; and
- e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any noncompliance.

- 4. The Corps shall obtain any applicable licenses, permits, or other authorizations, which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
- 5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
- 6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.
- 7. Nothing herein authorizes any entrance upon or activities on property, which is not owned or controlled by the Corps or local sponsor, or convey any vested rights or any exclusive privileges.
- 8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.
- 9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.
- 10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice (email is adequate) of commencement of activities indicating the anticipated start date and the anticipated completion date.
- 11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
- 12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The

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Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

SPECIFIC CONDITIONS:

- 1. **Addresses.** Reports and notices submitted to the Department in accordance with this permit shall be submitted to the Department's Southeast District Office, Watershed Management and Planning Section, Attn.: Compliance Officer, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401, telephone number (561) 681-6664. Electronic copies of reports and notices required by this permit shall also be sent to RPPS_comp@dep.state.fl.us.
- 2. Authorized Construction: This permit authorizes construction of the Herbert Hoover Dike Rehabilitation and Repair Project to backfill an abandoned state-owned borrow pit that is adjacent to the HHD levee and just south of Paul Rardin Park within Reach 1D in accordance with maps, drawings and other documents submitted on January 18, 2008, April 14, 2008, August 12, 2008, and August 25, 2008. Construction consists of backfilling nearly 22.1 acres of undrained borrow pit with select granular fill as well as granular material from onsite uplands excluding the upland area in the vicinity of soil boring QPSB-8. At the start of construction, at least 2 feet of clean fill shall be placed over an area approximately 80 ft. by 80 ft. centered over soil boring QPSB-8. (See Specific Condition No. 15.) Prior to backfilling, undesirable submerged debris (e.g., tires, wood, etc.) shall be removed and properly disposed. (See Specific Conditions Nos. 13 and 14.) If the water level within the borrow pit rises as a response to the backfilling, then offsite discharge via the adjacent stormwater drainage ditch may occur. After backfilling, the surface will be covered with a layer of topsoil and then seeded or sodded. A new perimeter retention swale will be constructed along the southeastern edge of the borrow pit and will capture and convey stormwater runoff to avoid offsite flooding. The hydraulic connection between the new retention swale and the existing stormwater drainage ditch will be maintained. The Corps shall keep a copy of this permit on site at all times until construction is complete.
- 3. **Instructions to Corps Construction Personnel and/or Contractors.** The Corps shall ensure that all construction personnel working on the project are briefed on the permit conditions and shall give a copy of this permit to each contractor and subcontractor before the authorized work begins. Prior to construction, the Corps shall schedule a pre-construction meeting and invite the contractor(s), and representatives from the U.S. Army Corps of Engineers, the Department, and other environmental regulatory agencies. The Department shall receive at least two weeks' prior notice of the meeting (email is the preferred method of notification). Within 30 days from the Notice-to-Proceed to the contractor or upon Corps approval of a proposed construction schedule, whichever occurs first, the Corps shall provide the proposed construction schedule to the Department at the address identified in Specific Condition No. 1.
- 4. Threatened and Endangered Species. The permittee shall coordinate with both the Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service (Service) for appropriate guidance, recommendations and/or necessary authorizations to avoid, minimize or mitigate impacts to listed species. The Corps shall comply with applicable federal and state law with regard to protected species and agree to consider input from and to comply with requirements of the FWC to the extent that to do so would not create an irreconcilable conflict with the Corps' federal responsibilities. The Corps shall coordinate with all involved federal and state agencies to determine if there are reasonable alternatives that would avoid an irreconcilable conflict.

The Department will provide a determination of whether or not the plan is consistent with Department statutes and rules. A copy of the Corps' and/or the contractor's final Environmental Protection Plan shall be provided to the Department's representative at the pre-construction meeting and to the Department's office at the address listed in Specific Condition No. 1. This Environmental Protection Plan shall include, at a minimum, the Corps' proposed measures to avoid adverse effects to the bald eagle and the Eastern indigo snake. Prior to the initiation of construction, the Corps shall search the area for bald eagle nests to avoid construction activities that may disrupt nesting. Also, prior to construction, the Corps and/or the contractor shall instruct all personnel associated with the project that threatened and endangered species may be present in the area, and the need to avoid harming, harassing, or killing these species and the civil and criminal consequences. Other protected

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species that might be observed in the region include the American alligator, wood stork, snail kite, crested caracara, burrowing owl, gopher tortoise, and the Okeechobee gourd plant. Construction activities shall be kept under constant surveillance, management, and control to minimize any interference, disturbance, or impact to these and other protected species.

- 5. **Right-of-way Determination.** Prior to working within any particular area, the Corps shall ensure that the area is owned by either the Board of Trustees of the Internal Improvement Trust Fund or the South Florida Water Management District (District).
- 6. **Operation, Maintenance, Repair, Replacement and Rehabilitation.** The Corps shall maintain the backfilled borrow pit with retention swale as needed in the future such that the stability of the HHD levee is enhanced, seepage and piping are reduced, and its capability to convey stormwater runoff is not adversely impacted. Routine inspections shall be performed by the Corps to confirm the backfilled area's slope and grass cover are adequate, the drainage swale is unobstructed, and the hydraulic connections with culverts and lateral ditches are fully functional.
- 7. **Wetland Protection and Restoration.** This project is expected to result in approximately 2.2 acres of wetland impacts and 19.9 acres of open surface water impacts. All project construction in and near wetlands or other surface waters shall be conducted by the Corps to minimize impacts on these natural resources.
- 8. Wetland Mitigation. Approximately 2.2 acres of wetlands surrounding the state-owned borrow pit will be filled by the proposed project. Mitigation is required to offset these impacts which are estimated at 0.74 functional loss units. In anticipation of filling wetlands to repair the HHD, the Corps agreed with recommendations of the United States Fish and Wildlife Service (Service) and conducted mitigation at a 57-acre site adjacent to Reach 2 of the proposed HHD rehabilitation located near the Alvin Ward Boat Ramp. During 2000-2001, the Corps removed invasive non-native Melaleuca trees from this site and has continued to maintain the area. The Department confirmed the mitigation success and value of the Melaleuca tree removal and maintenance during a site visit on January 11, 2007, with representatives of the Corps and the Service present. The Department accepts the Corps' proposal to use 2.6 acres from this site to offset the 0.74 functional loss units required for Reach 1D borrow pit backfill construction. Future HHD rehabilitative work may require additional mitigation. See Figure 3 for a map showing the location of the mitigation site. The Corps shall continue to maintain the site free of exotic plant species.
- 9. Construction Best Management Practices. At all times during the construction, the Corps shall use best management techniques for erosion and sedimentation control. All graded areas shall be stabilized immediately after construction to prevent erosion. The Corps shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site. Turbidity barriers/curtains or other appropriate measures such as temporary earthen plugs shall be installed in the drainage ditches upstream and downstream of the backfilling area within each active work zone. These turbidity barriers/curtains or other appropriate measures shall be installed to prevent turbidity from escaping from the areas being backfilled or other work areas.
- 10. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains and hay bales, shall be employed during all construction activities that may create turbidity so that it shall not exceed 29 NTU's above background. Turbidity controls shall be maintained around the work area to confine turbidity generated by the construction within the work area. All turbidity control devices and/or preventive operation procedures shall remain in place until all turbidity has subsided and the turbidity level at the construction zone meets state standards.

Sampling and analyses shall be performed as required by Chapter 62-160, F.A.C. Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction activities that could result in project-generated turbidity levels beyond the work area that have the potential to be discharged to the receiving water body. During all activities that may create turbidity, the Corps shall monitor turbidity levels at least once every four hours (unless monitoring data shows this to be excessive) as follows:

A. Monitoring samples shall be taken at the following locations:

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- 1. Background Sample(s): One background sample station, at least 150 meters upstream of the work area, in each adjacent canal, collected outside of containment barriers, and outside any visible plume generated by the construction; and
- 2. Compliance Sample(s): Monitoring station located in each canal adjacent to the work area, no greater than 150 meters down current from the work area within the densest portion of any visible plume generated by construction.
- B. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three calendar months) by project. Beginning with the first calendar month that construction occurs that could generate turbidity in waters adjacent to the construction site, a report containing the summarized turbidity monitoring results for the project shall be submitted quarterly to the Department at the address listed in Specific Condition No. 1. If no construction occurs that could generate turbidity during the quarterly monitoring period, the report shall be so noted. The reports shall also contain the following information:
 - 1. Permit number;
 - 2. Dates and time of sampling and analysis;
 - 3. A statement describing the methods used in collection, handling, storage and analysis of the samples;
 - 4. A clear description of project activities taking place at the time of sampling;
 - 5. A map indicating the sampling locations;
 - 6. Name of individual collecting samples; and
 - 7. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.
- C. Monitoring reports shall also include the following information for each sample that is taken:
 - 1. Water depth;
 - 2. Depth of sample;
 - 3. Weather conditions; and
 - 4. Water level stage and direction of flow.

In the event that project-generated turbidity levels exceed 29 NTU's above background in the receiving waters, project activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified within 24 hours via email and a telephone call (See Specific Condition No. 1). Work shall not resume until the work can be conducted in compliance with these turbidity limits or an accompanying variance, where applicable.

- 11. **Surface Waters.** All construction work in surface waters shall be conducted in a manner to comply with State Water Quality Standards.
- 12. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities. The issuance of this permit does not constitute coverage under the National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) pursuant to Rule 62-621.300(4), F.A.C. Prior to the commencement of any construction, the permittee is advised to contact the Department's NPDES Stormwater Program at (850) 245-7522 or toll free at (866) 336-6312 or to download application information from the Department's web site at http://www.dep.state.fl.us/water/stormwater/npdes/construction3.htm#permit.

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13. **Submerged Debris.** Prior to backfilling the undrained borrow pit, the permittee shall remove all submerged debris that does not meet the definition of "clean debris" specified in Rule 62-701.200(15), F.A.C., as:

Any solid waste which is virtually inert, which is not a pollution threat to ground water or surface waters, is not a fire hazard, and is likely to retain its physical and chemical structure under expected conditions of disposal or use. The term includes brick, glass, ceramics, and uncontaminated concrete including embedded pipe or steel.

The permittee shall handle, store, and dispose of the submerged debris that is removed from the borrow pit in accordance with Specific Condition No. 14.

- 14. **Solid and Hazardous Waste.** The Corps' construction personnel and/or contractor shall properly handle, store, and dispose of any solid and hazardous waste encountered while completing this project as follows:
 - A. Unacceptable and prohibited materials encountered shall be temporarily stored in containers to prevent spillages and potential stormwater, ground, and/or groundwater contamination. Storage time shall be limited to thirty (30) days. Materials shall be disposed of at an approved and permitted site.
 - B. Construction and Demolition (C&D) debris and residuals commingled with Class I or Class III material shall be considered Class I or Class III material, respectively, pursuant to Rule 62-701.200(19), F.A.C. C&D debris and residuals commingled with both Classes I and III material shall be considered Class I material. Said materials classified as Class I or Class III material shall be disposed of at an approved and permitted facility within thirty (30) days of encountering such materials.
 - C. A waste determination shall be performed on any segregated potential hazardous waste. If any waste is determined to be hazardous waste, arrangements shall be made to transport said waste via a licensed hazardous waste transporter to an approved hazardous waste disposal site. Temporary storage of such hazardous waste shall not exceed thirty (30) days. Any hazardous waste encountered shall be managed in accordance with the provisions of Chapter 62-730, F.A.C.
 - D. All processing of vegetative matter and clean, untreated wood that is made into wood chips, shall be processed and removed within sixty (60) days of encountering such materials. All woody vegetative matter and clean wood that will not be processed into wood chips or burned on site shall be removed within sixty (60) days of encountering these materials. Treated or painted wood shall not be chipped or burned and shall be containerized and disposed of at an approved and permitted facility within thirty (30) days of encountering such materials. Local disposal of treated and painted wood is limited to a Class I landfill or a lined Class III landfill.
- 15. **Soil Contamination at Soil Boring QPSB-8.** The abandoned borrow pit is within a 39.06-acre tract of land that is currently owned by the Board of Trustees of the Internal Improvement Trust Fund. A Phase I/II Environmental Site Assessment (ESA) was prepared for the South Florida Water Management District (District) on this parcel in May 2008. The Phase I/II ESA found soil contamination at soil boring QPSB-8 which is located just south of a dirt access road in the northern portion of the parcel. The parameters that had concentrations above the Soil Cleanup Target Levels (SCTLs) specified in Chapter 62-777, F.A.C., included:
 - Arsenic (above the residential SCTL);
 - 4,4'-DDD; 4,4'-DDE; total chlordane; and chromium (above leachability based on freshwater surface water SCTLs).

The District performed additional soil sampling and analyses for the upland soils at and in the vicinity of soil boring QPSB-8 in December 2008 to further assess the elevated arsenic levels and to evaluate the soil's leachability for the above-listed parameters. The results of this additional sampling and analyses showed:

• 11 of the 13 sampling locations had arsenic concentrations that exceeded the residential direct exposure SCTL in the surface samples (0-6" below ground surface).

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 Only the Synthetic Precipitation Leaching Procedure (SPLP) test result for chromium in the surface sample at soil boring QPSB-8 slightly exceeded the freshwater surface water cleanup target level.

Due to these test results and the potential future use of this property (e.g., construction staging area, local park), the permittee shall place a minimum of 2 feet of clean fill on an area approximately 80 ft. by 80 ft. centered over soil boring QPSB-8 at the start of construction. This cap will remain throughout and after the completion of this project to isolate this area, prevent this area from being used as fill for the borrow pit, and prevent direct exposure.

Prior Department approval is required to implement any alternative plan for disposing or sequestering contaminated upland soils.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

lack Long

District Director Southeast District

JL/dh/sg

FILING AND ACKNOWLEDGMENT

Filed on this date, pursuant to Section 120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

aig G. Harmon 5/19/09

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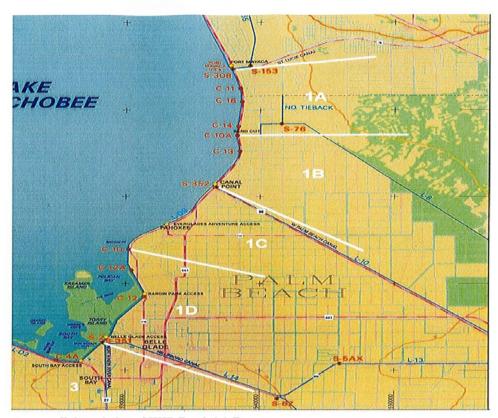
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FIGURE 1



Enlarged view of HHD Reach 1 A-D.

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FIGURE 2 – Location of Reach 1D Borrow Pit



Herbert Hoover Dike: Existing Right Of Way Priority 2: Rardin Pk to South End of Quarry

Imagery: NAIP, 2007

Parcels: Palm Beach County, 2006

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FIGURE 3

